

## WE CLAIM

1. A printing device that comprises  
a body, a printing cartridge being engageable with the body, the printing cartridge having a housing, an actuator formation being positioned on the housing and representing data relating to a characteristic of the printing cartridge;  
a printing mechanism that is positioned in the body;  
a processor for controlling operation of the printing mechanism; and  
an array of capacitive sensors positioned in the body and being configured so that predetermined combinations of capacitive sensors in the sensor array, when actuated, generate signals carrying data related to the characteristic of the printing cartridge, such predetermined combinations of capacitive sensors being actuatable by the actuator formation positioned on the housing of the printing cartridge when the printing cartridge is engaged with the body so that the array of capacitive sensors generates a signal carrying said data relating to the characteristic of the printing cartridge.
2. A printing device as claimed in claim 1, in which the array of capacitive sensors is configured so that predetermined combinations of capacitive sensors in the sensor array, when actuated, generate signals carrying data related to a media colorant contained in the printing cartridge.
3. A printing device as claimed in claim 1, in which the array of capacitive sensors is configured so that predetermined combinations of capacitive sensors in the sensor array, when actuated, generate signals carrying data related to a media supply contained in the printing cartridge.
4. A printing device as claimed in claim 1, in which the array of capacitive sensors is configured so that predetermined combinations of capacitive sensors in the sensor array, when actuated, generate signals carrying data related to a media colorant and a media supply contained in the printing cartridge.
5. A printing device as claimed in claim 1, in which the array of capacitive sensors is the product of an integrated circuit fabrication process.
6. A printing device as claimed in claim 5, in which the array of capacitive sensors is in the form of a ceramic metal oxide semiconductor (CMOS) device.
7. A printing device as claimed in claim 6, in which the array of capacitive sensors includes a substrate having dielectric properties, the substrate defining a contact surface against which the actuating formation bears, with each capacitive sensor including a capacitor plate positioned in the substrate, and spaced from the contact surface, so that, when the actuating formation bears against the contact surface, the capacitor plate and the actuating formation defines a capacitor.

8. A printing device as claimed in claim 7, in which the capacitor plates are positioned so that capacitor plates of predetermined combinations of capacitor plates correspond with projections of the actuating formation, to define capacitors having a capacitance that represents the data relating to the media colorant
9. A printing device as claimed in claim 8, in which the array of capacitive sensors incorporates circuitry to determine said capacitance.